

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A radial tire for a heavy load comprising:

a carcass extending to a bead core of a bead portion from a tread portion via a side wall portion; and

a belt layer arranged inside the tread portion and outside the carcass,

wherein a carcass cord of said carcass is constituted by a metal cord having a core comprising totally 6 to 12 filaments sectioned into \pm 2 to 4 filament bundles, and a sheath comprising 8 to 15 filaments arranged around the core,

wherein each of said filament bundles includes a waved filament modeled in a two-dimensional wave shape having crests and troughs repeatedly and a non-waved filament, in a state before being bundled, and

wherein ~~said core makes the wave of said waved filament three dimensional within the core by applying~~ a torsion is applied to each of the filament bundles individually so as to make a strand, and the strands are twisted together so as to make said core after or at the same time torsion is applied.

2. (Previously Presented) A radial tire for a heavy load as claimed in claim 1, wherein said core is formed from one filament bundle, and is bundled with said sheath while applying the torsion to each of said filament bundles.

3. Cancelled

4. (Previously Presented) A radial tire for a heavy load as claimed in claim 1, wherein the filament of said core has a wire diameter between 0.15 and 0.30 mm and having substantially the same diameter as that of the filament of said sheath.

5. (Currently Amended) A radial tire for a heavy load as claimed in claim 1, wherein said waved filament satisfies a ~~relation of~~ the following ~~formulas~~ relationships (1) to (2), ~~when setting a wave pitch is Pw and a wave height to h :~~

$$5.0d \leq Pw \leq 30.0d \quad \dots (1)$$

$$0.2d \leq h \leq 3.0d \quad \dots (2)$$

wherein Pw represents the wave pitch and h represents the height.

6. - 7. Cancel

8. (Previously Presented) A radial tire for a heavy load as claimed in claim 2, wherein said core has a replacement portion in which positions of the filaments are replaced between an inner side and an outer side, within the filament bundle, and a number of the replacement portion is set to be equal to or more than 5 per a cord length 1 m.

9. (Previously Presented) A metal cord comprising:

a core comprising totally 6 to 12 filaments sectioned into 1 to 4 filament bundles, and a sheath comprising 8 to 15 filaments arranged around the core,

wherein each of said filament bundles includes a waved filament modeled in a two-dimensional wave shape having crests and troughs repeatedly and a non-waved filament, in a state before being bundled, and

wherein said core makes the wave of said waved filament three-dimensional within the core by applying a torsion to each of the filament bundles.

10. (Previously Presented) A metal cord as claimed in claim 9, wherein said core is formed from one filament bundle, and is bundled with said sheath while applying the torsion to each of the filament bundles.

11. (Previously Presented) A metal cord as claimed in claim 9, wherein said core is formed from two to four filament bundles each constituted by three filaments, and after forming a core by twisting said filament bundles with each other after or at the same time when the torsion is applied to each of said filament bundles.

12. (New) A radial tire for a heavy load comprising:

a carcass extending to a bead core of a bead portion from a tread portion via a side wall portion; and

a belt layer arranged inside the tread portion and outside the carcass,

wherein a carcass cord of said carcass is constituted by a metal cord having a core comprising from 2 to 4 filament bundles each constituted by 3 filaments, and a sheath comprising 8 to 15 filaments arranged around the core,

wherein each of said filament bundles includes a waved filament modeled in a two-dimensional wave shape having crests and troughs repeatedly and a non-waved filament, in a state before being bundled, and

wherein a torsion is applied to each of said filament bundles individually together so as to make a strand, and the strands are twisted together so as to make said core after or at the same time said torsion is applied.

13. (New) A radial tire for a heavy load comprising:

a carcass extending to a bead core of a bead portion from a tread portion via a side wall portion; and

a belt layer arranged inside the tread portion and outside the carcass,

wherein a carcass cord of said carcass is constituted by a metal cord having a core comprising totally 6 to 12 filaments sectioned into 2 to 4 filament bundles, and a sheath comprising 8 to 15 filaments arranged around the core,

wherein each of said filament bundles includes a waved filament modeled in a two-dimensional wave shape having crests and troughs repeatedly and a non-waved filament, in a state before being bundled, and

wherein a torsion is applied to each of the filament bundles individually so as to make a strand, and the strands are twisted together so as to make said core after or at the same time said torsion is applied, and

wherein the twist pitch of said core is between 5 and 30 mm, and the torsion pitch of each of the filament bundles is equal to or more than 2 times said twist pitch and equal to or less than 20 times said twist pitch.

14. (New) A radial tire for a heavy load comprising:

a carcass extending to a bead core of a bead portion from a tread portion via a side wall portion; and

a belt layer arranged inside the tread portion and outside the carcass,

wherein a carcass cord of said carcass is constituted by a metal cord having a core comprising totally 6 to 12 filaments sectioned into 2 to 4 filament bundles, and a sheath comprising 8 to 15 filaments arranged around the core,

wherein each of said filament bundles includes a waved filament modeled in a two-dimensional wave shape having crests and troughs repeatedly and a non-waved filament, in a state before being bundled,

wherein a torsion is applied to each of said filament bundles individually so as to make a strand, and the strands are twisted together so as to make said core after or at the same time said torsion is applied, and

wherein the twist pitch of said sheath is between 5 and 30 mm.